NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**You will go to the following website, read the directions and do the activity below:**

[**http://www.biology.arizona.edu/cell\_bio/activities/cell\_cycle/cell\_cycle.html**](http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/cell_cycle.html)

**Online Onion Root Tips**

**The assignment**

In this activity, you will be presented with cells from the tip of an onion root. You will classify each cell based on what phase it is in. At the end you will count up the cells found in each phase and use those numbers to predict how much time a dividing cell spends in each phase. You can base your calculation on a total cell cycle of 24 hours.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Interphase | Prophase | Metaphase | Anaphase | Telophase | Total |
| number of cells |  | * http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/graphics/2by2.gif | http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/graphics/2by2.gif | http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/graphics/2by2.gif | http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/graphics/2by2.gif | 36 |
| percent of cells | http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/graphics/2by2.gif | http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/graphics/2by2.gif | http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/graphics/2by2.gif | http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/graphics/2by2.gif | http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/graphics/2by2.gif | 100% |

To calculate the percentage of cells in each phase, do the following:

# of cells in a certain phase x 100

The total number of cells

In words, take the number of cells in each phase and divide it by the total number of cells. Then multiply that by 100. This will give you the percentage of cells in each phase.